

**Precision and E-VNAV Missed Approach**  
**Sections 1a, 1b, 1c**  
**DA Adjustment for OCS Penetration**

When section 1 of the missed approach segment is penetrated, action must be taken to eliminate the obstruction from consideration. The obstruction should be removed, reduced in height, glidepath angle raised (if section 1a penetrated), or the DA adjusted.

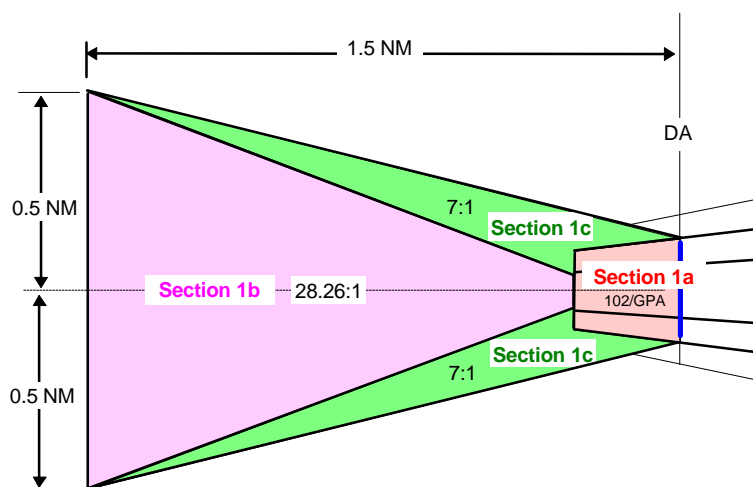
When the DA is adjusted, the missed approach segment must be re-evaluated to verify the new position of section 1 does not present more penetrations generating further adjustment. The missed approach OCS's must be clear to approve the approach procedure.

Use the following formulae to determine:

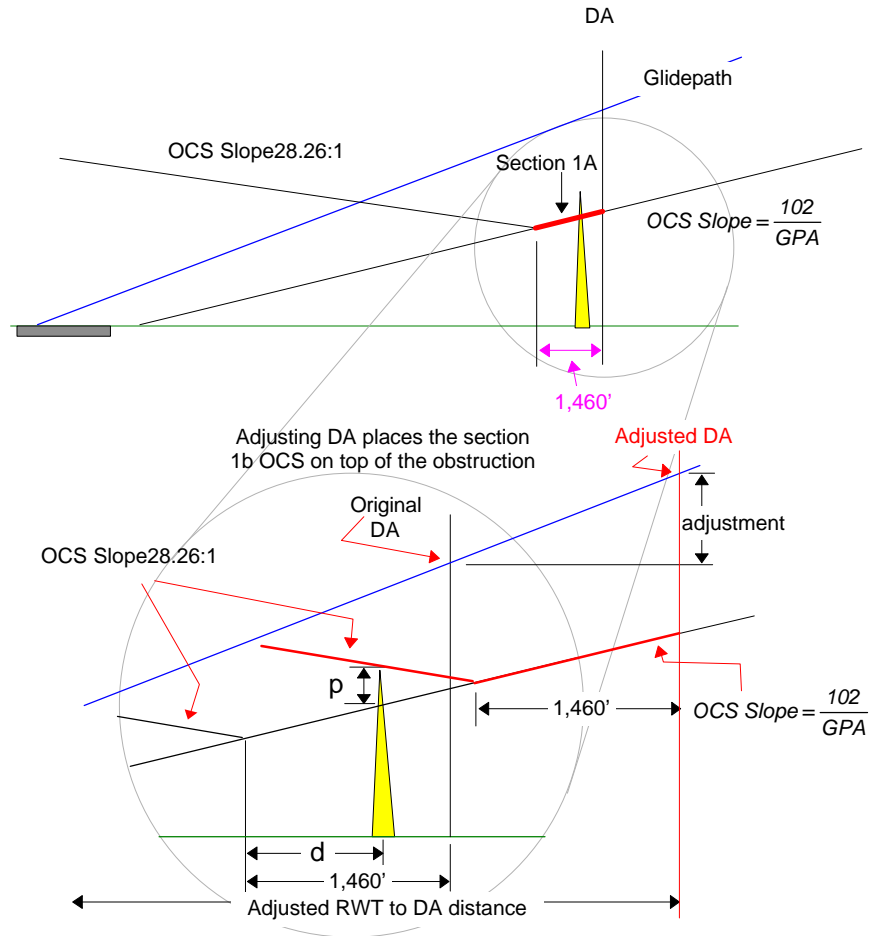
1. the distance from threshold to adjusted DA,
2. the adjusted DA value, and
3. the adjusted HAT value.

**Figure 1 Missed Approach Section 1a,b,c**

*Scale exaggerated for emphasis.*



**Figure 2. Penetration of  
Section 1a OCS**



$$d = x_o - (\text{RWT to DA Distance} - 1,460)$$

$$\text{adjustment} = \tan(GPA) \times \left[ \left( \frac{\frac{p}{1}}{\frac{28.26}{1} + \frac{102}{GPA}} \right) + d \right]$$

$$\text{adjusted DA (MSL)} = \text{original DA} + \text{adjustment}$$

$$\text{adjusted RWT to DA Distance} = \frac{\text{Adjusted DA (MSL)} - (\text{RWT MSL Elevation} + \text{TCH})}{\tan(GPA)}$$

where  $p$  = penetration (ft)

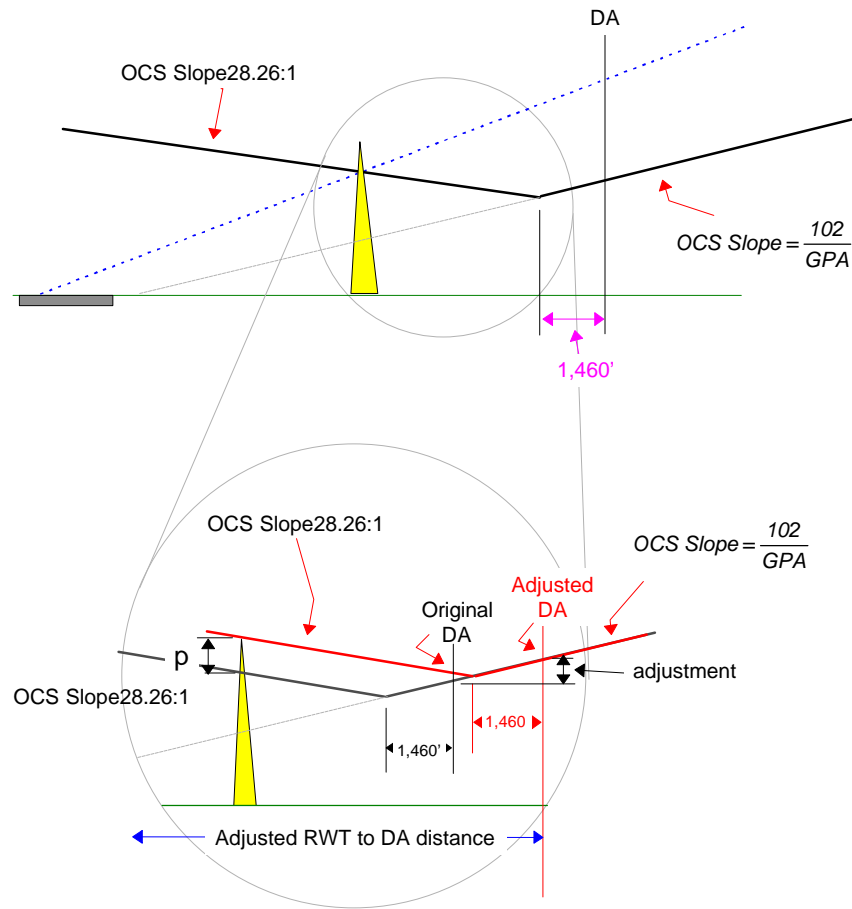
$GPA$  = glide path angle

$x_o$  = distance from RWT to obstruction

$d$  = distance (ft) from obstruction to point

where the 28.26:1 OCS originates

**Figure 3. Penetration of Section 1b OCS**



$$adjustment = \tan(GPA) \times \left( \frac{p}{\frac{1}{28.26} + \frac{GPA}{102}} \right)$$

$$adjusted\ DA\ (MSL) = original\ DA + adjustment$$

$$adjusted\ RWT\ to\ DA\ Distance = \frac{adjusted\ DA\ (MSL) - (RWT\ MSL\ Elevation + TCH)}{\tan(GPA)}$$

where  $p$  = penetration (ft)  
 $GPA$  = glide path angle

## **Penetration of Section 1c**

When section 1c is penetrated, reduce the obstruction height by the amount of 7:1 surface rise from the edge of section 1a or b as appropriate (measured perpendicular to MA course). Then evaluate the obstruction as if it were in section 1a or b as appropriate.

## **Penetration of Section 2**

When section 2 is penetrated, reduce the obstruction height by the amount of surface rise from the end of section 1b to the obstruction. Then evaluate the obstruction as if it were at the end section 1b.